# SubliJet IQ™

## Getting Started Guide

For EPSON Stylus® PRO 4880

**Revision 3/2008**

# SubliJet IQ™
## Getting Started Guide for the EPSON Stylus® PRO 4880

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# Introduction

Congratulations on your purchase of SubliJet IQ™ digital transfer inks. The SubliJet IQ™ sublimation ink cartridges are the latest advancement for the EPSON Stylus PRO 4880 from Sawgrass Technologies, Inc., a leader in the development of digitally driven color transfer technologies and related products.

Discover the new, smart choice for extraordinary profitability and value - SubliJet IQ with the Epson Stylus Pro 4880. Imagine printing 20 t-shirt transfers in approximately 17 minutes! Now imagine how many mugs you could print in the same time frame! The SubliJet IQ Epson 4880 System is offered with our Red/Blue XG$^8$ system option. This revolutionary, comprehensive approach takes sublimation to the professional level, allowing users to create perfect transfers with minimal effort. With true eight-color printing, the XG8 System increases color gamut, creates noticeably smoother gradient transitions, captures finer detail and adds color depth. The Red & Blue inks achieve true blues and richer reds for better spot colors and the Light Cyan and Light Magenta create the ultimate photo advantage with more realistic flesh tones and improved image quality

In addition, your system is bundled with PowerDriver XG$^8$, a user-friendly color management software package that allows the user to create flawless transfers in less time. The “Fast Copies” option reduces print time by automatically spooling the file to the printer only once regardless of the number of copies. Design time is also condensed by utilizing the ColorSure Palette. The color palette contains 160 more spot colors and the custom palette utility gives users the ability to add, edit, import or export colors, thus streamlining the color matching process. Instructions for installation and use of this system can be found in this User’s Guide under the PowerDriver instruction section.

This document contains information for using SubliJet IQ™ inks and the helpful tips are provided for getting the best results from your transfers. The information provided pertains only to the use of SubliJet IQ™ in your EPSON Stylus PRO 4880 printer. If you have questions about the operation of your EPSON printer, refer to the *EPSON Stylus PRO 4880 Printer User’s Guide.*

Technical support is available from your Authorized SubliJet reseller or directly from Sawgrass Technologies, Inc. See the section entitled *Technical Support* for additional information.

We at Sawgrass strive to provide you with the tools to make the sublimation process easy to learn and simple to master. We hope you will find that the tools we have developed will make your years in the sublimation business fun and profitable. Please feel free to contact us with your feedback about our products. For additional information on our other products, visit our web site at www.sawgrassink.com.

Thank you and enjoy your SubliJet IQ™ printing system.

# About this Document

This document contains descriptions and procedures for using SubliJet IQ™ ink, along with additional information for getting the best results from your transfers.

The documentation provided pertains only to the use of SubliJet IQ™ ink in your EPSON Stylus PRO 4880 ink jet printer. To assist you in the overall setup process, references are made back to the instructions contained in the *EPSON Stylus PRO 4880 Quick Reference Guide*.

To help point out important information, specific instructions, and helpful tips, look for the following symbols:

Indicates **Must-Do** items, including warnings and important guidelines. These must be followed to prevent damage to your printer.

Indicates useful tips for printing and sublimation.

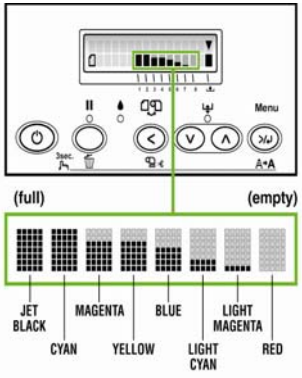
# Installing SubliJet IQ™ Cartridges

**Do not install the Epson Inks provided with the printer. Please call Sawgrass Technical Support if you need assistance installing the SubliJet IQ inks.**

If you are replacing existing cartridges because they are empty or low, please see the following instructions. If not, go directly to step #1

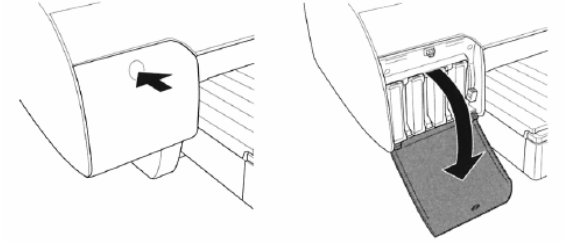
When a cartridge is empty or low, INK LOW or REPLACE INK CART will display on the LCD panel. Raise, then lower the ink levers on either side of the printer. The ink indicator the LCD Panel will flash, indicating which cartridge is low or empty. Be sure you have the correct color cartridge for replacement.

The LCD panel will indicate the ink colors of the original OEM ink configuration and not the SubliJet XG8 configuration.

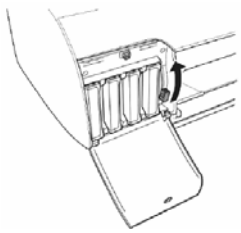



**SUBLIJET XG8 INK CONFIGURATION.**

1. Ensure the printer power is on. Press the ink compartment cover to release the latch and open the cover.



2. Raise the ink lever to the unlocked position. The ink lever is located to the right of each ink compartment. If you are installing a complete set of ink cartridges, then install using the following order starting from left to right: **Jet Black, Cyan, Magenta, Yellow, Blue, Light Cyan, Light Magenta and Red.**

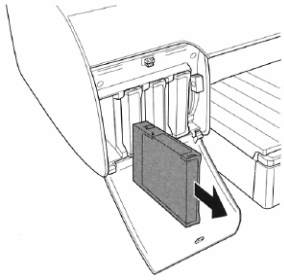


**Note**: The cartridge label should be facing left as the cartridge is inserted into its slot.

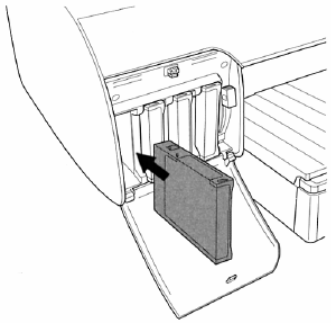
Continue to step 5 below.

If you are just replacing an empty cartridge, then continue to step 3 and 4 below.

3. Remove the empty ink cartridge from the printer.

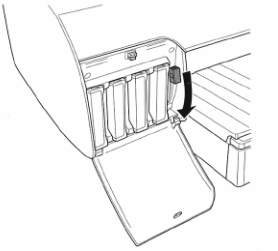


4. Remove the replacement ink cartridge from its packaging and insert it into the slot with the label facing left. Do not force the cartridge into the slot.



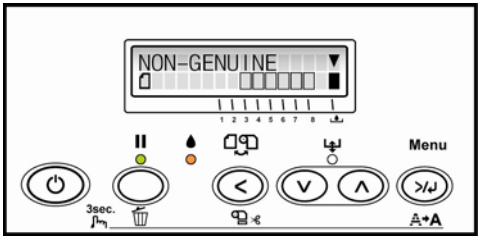
**If the cartridge does not insert smoothly into the slot, double check to make sure you have the correct cartridge installed in the correct slot. If the ink light remains on after installing the cartridge, remove the cartridge and reinsert to ensure it was fully placed in the slot.**

5. Lower the ink levers to the locked position.

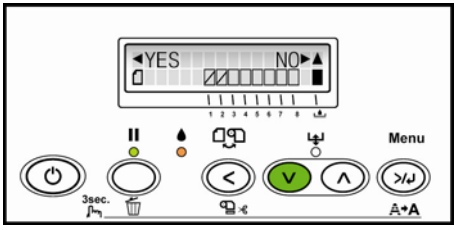


6. Close the ink compartment cover if you have standard size ink cartridges installed. When using extended size ink cartridges, the cover will stay open. After all eight cartridges are installed, lower the ink levers.

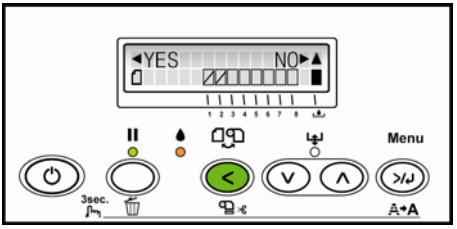
7. After approximately 1 minute, the ink lever messages will appear on the LCD panel. The LCD will indicate that the printer recognized “NON-GENUINE” ink cartridges.



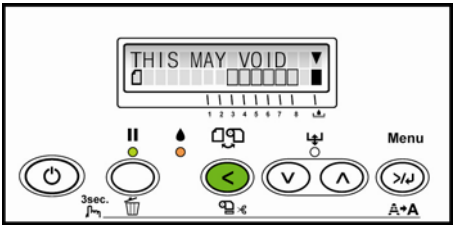

8. Press the down key (V) until a message appears that asks the user whether the ink cartridges are “NON-GENUINE”.



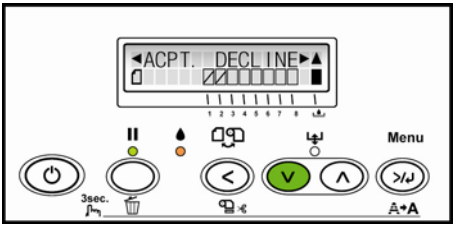
9. Press the left key (<) to acknowledge that the cartridges are “NON-GENUINE”.



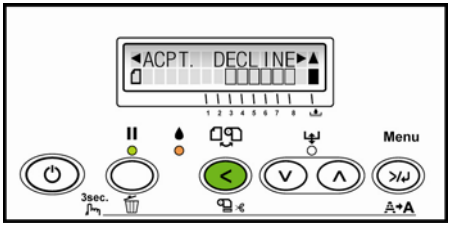

10. Press the left key (<) until the following message appears:



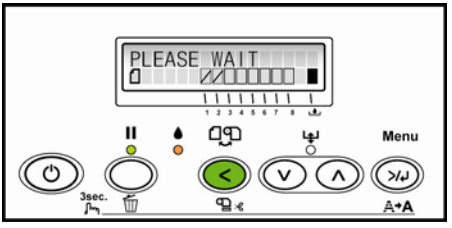

11. Press the down key (V) until the following message appears:

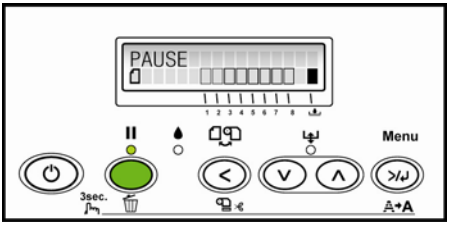



12. Press the left key (<) to accept acknowledgement of the warranty message.

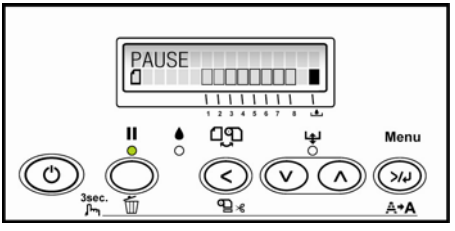


13. The following messages will appear:

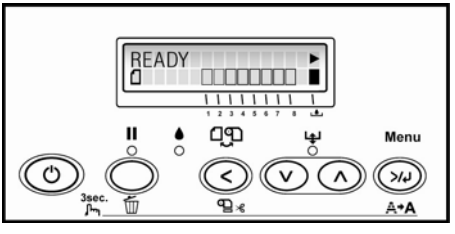



14. Press the PAUSE key once.




15. The following message will appear. The printer is now ready for use.



# Selecting Paper

For information on selecting the appropriate paper to use with your SubliJet IQ™ inks, please check our website at http://www.sawgrassink.com/support or call your authorized SubliJet reseller. While the use of copy paper or other inkjet paper will not harm your printer, the transferred results may be light, splotchy, or uneven. Some papers may even stick to the surface or leave a visible residue.

# Heat Transfer Instructions

Because you can print on a variety of surfaces, you need to take all variables of the surface into account when selecting time, temperature, and pressure. Some of the variables are:

- thickness of surface,
- how fast the surface absorbs heat,
- coatings used on the material to create a receptive surface for sublimation inks (ceramics, metals, etc.),
- accuracy of heat press (time, temperature, and pressure).

The information listed below are only guidelines. Due to the differences in heat presses and the various materials you will be printing on, it is not possible to give absolute figures. You should check with your supplier for specific heat transfer instructions or experiment to find your own preferred settings.

| SURFACE | TRANSFER TIME SUBLIJET IQ | TEMP | PRESSURE | REMARKS |
|---|---|---|---|---|
| CERAMIC | 150-210 seconds | 350-400ºF | 40 psi | Time varies with press, use green tile mat for ceramic tile |
| FR PLASTIC | 75-80 seconds | 400ºF | 40 psi | Remove Plastic |
| METAL (Other) White, Silver, Gold | 60 seconds | 375ºF - 400ºF | 40 psi | Time varies with metal manufacturer *(Contact your reseller for correct time and temperature)* Place absorbent sheet on bottom plate of heat press. Then place transfer paper face up on top of the absorbent. Next place the substrate face down on top of the transfer paper. *Remove paper from substrate immediately after transferring for best results.* |
| METAL (Universal Woods) | 60 seconds | 400ºF | 40 psi | Use absorbent, remove plastic |
| MOUSEPADS | 45 seconds | 400ºF | 40 psi | |
| POLYESTER FABRIC & PERFORMANCE APPAREL | 45 seconds | 400ºF | 40 psi | |
| SOFT L'INK™ | 35 seconds | 400ºF | 40 psi | Press for 5 secs to eliminate moisture, use Teflon sheet between sides of shirt to prevent "blow through" |
| TEC FILM | 210 seconds | 350ºF | 40 psi | |
| UNISUB™ PRODUCTS | 75-85 seconds | 400ºF | 40 psi | Remove Plastic |

# User Guide

For distribution with SubliJet IQ® only

**NOT FOR RESALE**

# PowerDriver Introduction

Obtaining the benefits of PowerDriver color management is now incredibly easy - simply print from your application with PowerDriver XG$^8$ rather than the Epson printer driver. PowerDriver prints your image just like the Epson printer driver except for the colors. Watch how it magically makes SubliJet colors picture perfect!

PowerDriver delivers both convenience and the highest quality SubliJet color management technology. The innovation demonstrated by PowerDriver is the result of our dedication to you, our customers. At Sawgrass Technologies, we are focused on delivering the highest quality digital transfer technology available. We fully expect that you will be "wowed" by the results you obtain with SubliJet and PowerDriver.

| PowerDriver Version | Ink Setup | Operating System |
|---|---|---|
| **PowerDriver XG$^8$** | **8 Color with Red / Blue** (Cyan, Magenta, Yellow, Jet Black, Light Cyan, Light Magenta, Red, and Blue) | Windows XP / Vista |

# System Requirements

**Minimum Recommended Hardware:**
Pentium 4 – 3.0GHz or Athlon XP 3000+ Processor
2 GB System Memory (2 GB is highly recommended when using the most recent graphic design software)
Windows XP / Vista
30 GB of Free Hard Disk Space for Software and Processing Files

# Setup Instructions – Windows XP / Vista

## Product Overview

PowerDriver XG$^8$ is a color management software solution that has been written as a Windows printer driver. It is designed to work with Epson ink-jet printers and Sawgrass sublimation ink. The installation program will install Sawgrass color management software, the Sawgrass PowerDriver XG$^8$ printer driver software, and ColorSure tools and utilities.

## Quick Start

1. Unpack and set up printer as described in the Epson manual.
2. Install the Epson printer driver and verify printer operation.
3. Insert the PowerDriver XG$^8$ CD into the CD-ROM drive on the computer and install PowerDriver.

## Step By Step Installation

To get started printing as soon as possible, these are the steps Sawgrass recommends you perform while setting up your sublimation printer driver software.

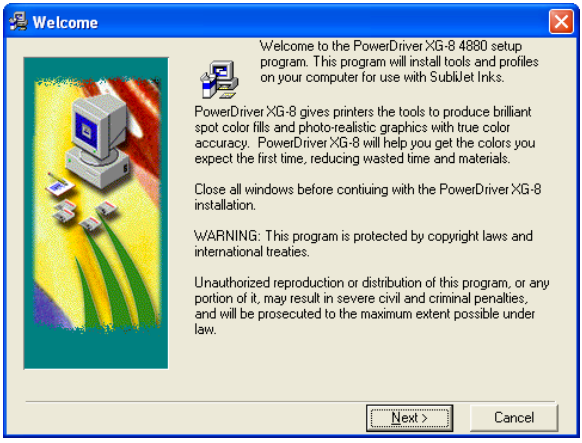
1. Set up the printer according to the Epson instructions.
2. Install your Sawgrass SubliJet ink cartridges.
3. Install the Epson printer driver according to the Epson user's manual.
4. After the Epson driver is installed, check to see which port the printer is set to:
    a. In XP you can do this by clicking on Start > Printers and Faxes. For XP with the Classic menu enabled, click Start, Settings, Printers.
    b. Right click on the Epson printer you just installed and click on the Properties option.
    c. Select the Ports tab and *write down the port the printer is assigned to*. You may use this later in the PowerDriver XG$^8$ software installation.

5. Insert the PowerDriver CD into your CD-ROM drive. The installation program should run automatically. (If the program does not automatically run, click Start > Run. Browse to locate your CD-ROM drive and click Setup).

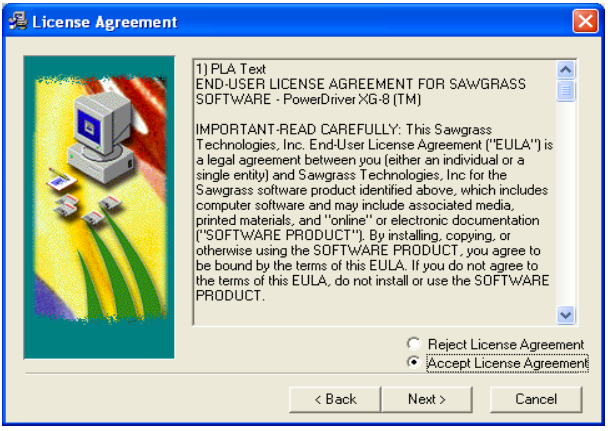
6. A screen will appear reminding you that the OEM Epson driver will need to be installed before proceeding with the PowerDriver installation process. Click OK to continue if you have already installed this driver.

Warning
Please make sure that the Epson printer driver is installed before installing the PowerDriver.
If you have already installed the Epson driver, please select OK and continue with the installation. If you need to install the Epson driver, please select Cancel and install the Epson driver.
OK
Cancel

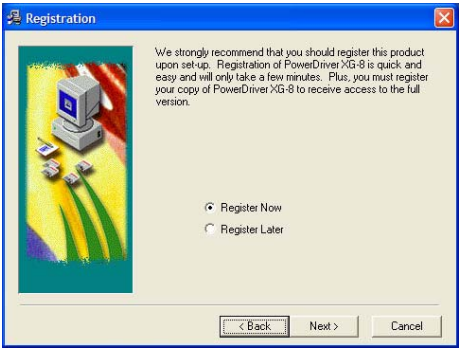
7. The Welcome screen is displayed. Click Next to proceed.


Welcome
Welcome to the PowerDriver XG-8 4880 setup program. This program will install tools and profiles on your computer for use with SubliJet Inks.
PowerDriver XG-8 gives printers the tools to produce brilliant spot color fills and photo-realistic graphics with true color accuracy. PowerDriver XG-8 will help you get the colors you expect the first time, reducing wasted time and materials.
Close all windows before contiuing with the PowerDriver XG-8 installation.
WARNING: This program is protected by copyright laws and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
Next >
Cancel

8. The License Agreement is displayed next. Select the appropriate choice for acceptance of the License Agreement to continue.


License Agreement
1) PLA Text
END-USER LICENSE AGREEMENT FOR SAWGRASS SOFTWARE - PowerDriver XG-8 (TM)
IMPORTANT-READ CAREFULLY: This Sawgrass Technologies, Inc. End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a single entity) and Sawgrass Technologies, Inc for the Sawgrass software product identified above, which includes computer software and may include associated media, printed materials, and "online" or electronic documentation ("SOFTWARE PRODUCT"). By installing, copying, or otherwise using the SOFTWARE PRODUCT, you agree to be bound by the terms of this EULA. If you do not agree to the terms of this EULA, do not install or use the SOFTWARE PRODUCT.
Reject License Agreement
Accept License Agreement
< Back
Next >
Cancel

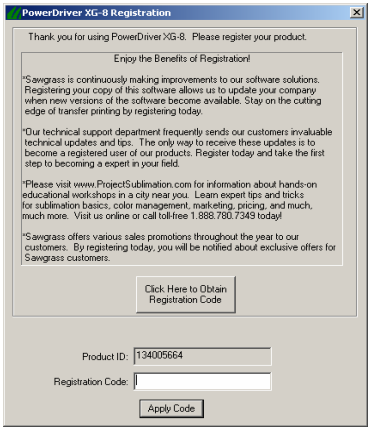
9. If you have not previously registered PowerDriver, you will be prompted to do so. Registering is the only way to take full advantage of the features in PowerDriver XG[8]. If you choose to register later, select Register Later and click Next to proceed with the installation.


Registration
We strongly recommend that you should register this product upon set-up. Registration of PowerDriver XG-8 is quick and easy and will only take a few minutes. Plus, you must register your copy of PowerDriver XG-8 to receive access to the full version.
Register Now
Register Later
< Back
Next >
Cancel

10. If you choose to register now, the registration screen will be displayed. To obtain your registration code you may do so in

one of the following ways: Register on-line and receive your registration code via e-mail. Call Sawgrass Technologies, Inc. directly (888) 253-1679 and obtain your code over the phone. Or send a fax and receive your registration code by fax.

To register, you will use your Product ID (displayed on the registration screen) to obtain a Registration code. You will need a separate registration code for every machine on which PowerDriver XG[8] is installed. Enter your registration code and click the Apply Code button.


PowerDriver XG-8 Registration
Thank you for using PowerDriver XG-8. Please register your product.
Enjoy the Benefits of Registration!
*Sawgrass is continuously making improvements to our software solutions. Registering your copy of this software allows us to update your company when new versions of the software become available. Stay on the cutting edge of transfer printing by registering today.
*Our technical support department frequently sends our customers invaluable technical updates and tips. The only way to receive these updates is to become a registered user of our products. Register today and take the first step to becoming a expert in your field.
*Please visit www.ProjectSublimation.com for information about hands-on educational workshops in a city near you. Learn expert tips and tricks for sublimation basics, color management, marketing, pricing, and much, much more. Visit us online or call toll-free 1.888.780.7349 today!
*Sawgrass offers various sales promotions throughout the year to our customers. By registering today, you will be notified about exclusive offers for Sawgrass customers.
Click Here to Obtain Registration Code
Product ID: 134005664
Registration Code:
Apply Code

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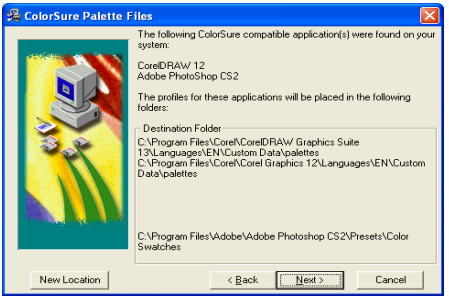
11. Sawgrass Technologies, Inc. provides ColorSure color palettes for use with Corel and Adobe. (Check the ColorSure section of the manual for information on how to use ColorSure to get perfect spot colors). If Setup detects either of these applications on your system, the palette files will be placed in the appropriate folder indicated in the Destination Folder box. Click Next to proceed with the installation.


ColorSure Palette Files
The following ColorSure compatible application(s) were found on your system:
CorelDRAW 12
Adobe PhotoShop CS2
The profiles for these applications will be placed in the following folders:
Destination Folder
C:\Program Files\Corel\CorelDRAW Graphics Suite 13\Languages\EN\Custom Data\palettes
C:\Program Files\Corel\Corel Graphics 12\Languages\EN\Custom Data\palettes
C:\Program Files\Adobe\Adobe Photoshop CS2\Presets\Color Swatches
New Location
< Back
Next >
Cancel

12. If you see the screen below, click Continue Anyway to proceed with the installation.

Hardware Installation
The software you are installing for this hardware:
Printers
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

13. Once the installation has completed, the Installation Complete screen will display. Click OK to end the installation.

# Using PowerDriver XG$^8$ in Windows XP / Vista

PowerDriver XG$^8$ is simple to use. Whenever you have SubliJet IQ inks in your printer, you should print using PowerDriver. **Do not** print to your Epson printer with the Epson printer driver; printing with the Epson driver will not give you the benefit of color management.

## Quick Start Example (Corel Draw)

1) Open/Create an image in Corel Draw.
2) Select print from the File menu.
3) Select the PowerDriver XG$^8$ printer.
4) Use the properties button to access and set the Color, Output, Ink and Substrate, Resolution, and Advanced options.
5) Click Print.

## Setting PowerDriver printer properties

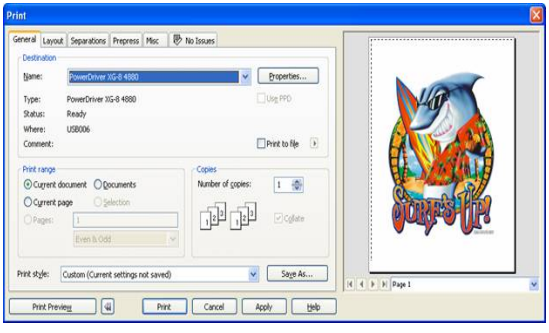
To configure PowerDriver for the correct substrate, you must display its printer properties. There are two ways to display the printer properties:

**From the Windows Desktop:**

1. Click on Start > Printers and Faxes.
2. Right-click on your PowerDriver printer.
3. Select *Printing Preferences*.

**From an Application:**

1. Select File > Print.
2. Choose the PowerDriver printer from the list of printers.
3. Click the Properties button.



## PowerDriver Properties Overview

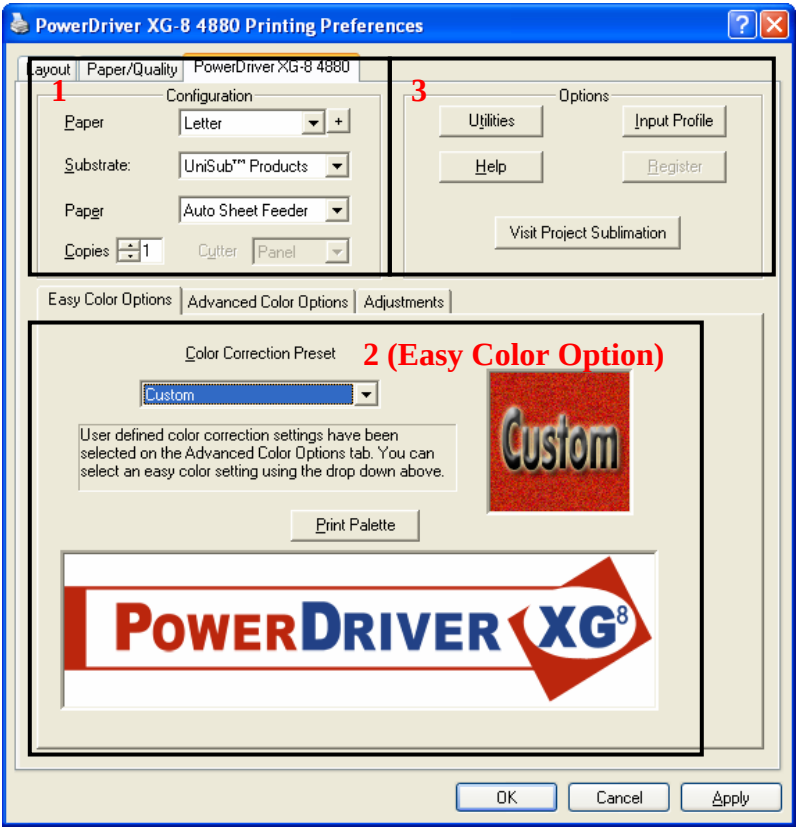
The figures below show the printer properties for a registered version of PowerDriver. The Advanced Color Options tab and the Print Palette functions will not be available if the product has not been registered.

There are three main property groups (see the numbered boxes in the screen shots below):

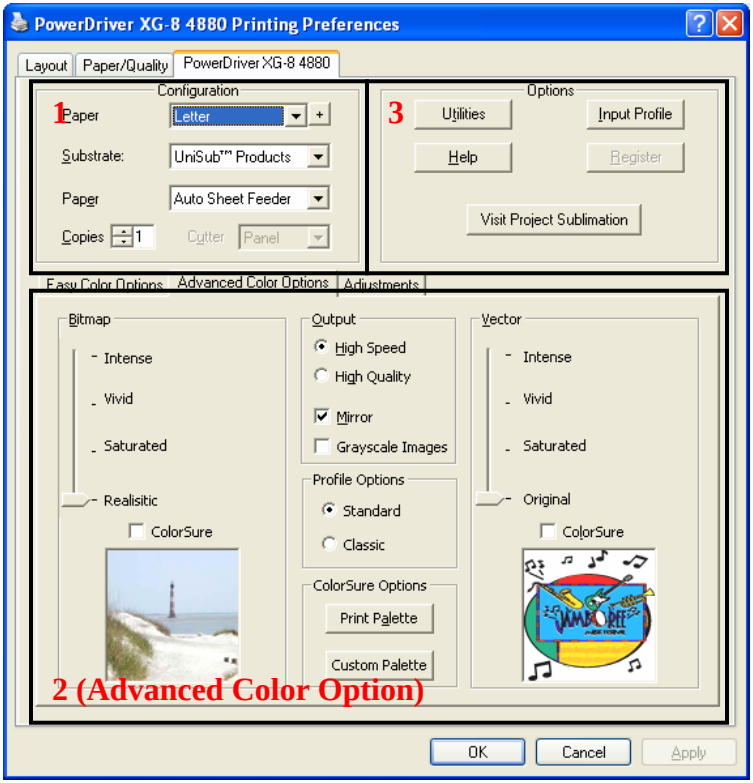
**Group (1): Configuration** – Set Paper, Transfer Substrate, and Copy Count

**Group (2): Color Settings** – Color management control options. (The Color Options group comes in two modes, Easy and Advanced.) Both are described below.

**Group (3): Options** – Utilities for printer maintenance, online help, product registration, and setting input profiles.




***Easy Color Property Page***




***Advanced Color Property Page***

# Group 1 – Configuration

**Paper Size** – From the drop down list, select the paper size you wish to use. To add custom paper sizes click the + button to the right of the paper size drop down list. *Note: After adding a custom paper size, the printing preferences dialog must be closed and re-opened before the new paper size will show in the paper size drop down list.*

**Substrate** – From the drop down list, select the type of material to which you will be transferring your printed image. It is important to choose the correct substrate. PowerDriver XG[8]'s color management is optimized for each different substrate.

**Paper Source** – From the drop down list, select the paper source you will be using.

**Copies** – Set the copy count for the number of prints to be made.

# Group 2 - Color Settings (Easy Color Mode)

The Easy Color Option tab provides you with access to a collection of carefully selected color management presets. The right color management choice is essential to making high quality transfers. Easy Color is a fast, simple way of choosing a color management scheme. You choose an Easy Color setting based on the composition of the original image. The chart below lists some guidelines for when to choose different Easy Color settings. Choosing a setting and clicking the apply button automatically sets the bitmap, vector, and output settings found on the advanced tab.

**Color Correction Preset –** Sets the color correction, the mirror, and the print quality options. The table below describes each Easy Color setting.

| Easy Color Icon | Easy Color Description |
|---|---|
| | **Photo – Realistic**<br>When to select: If your source image is a photograph, or a photographic scene.<br>Color Management Goal: Realistic color reproduction. The goal is to reproduce the transferred image with color that is as close as possible to the input image. |
| | **Clip Art and Text**<br>When to select: If your source image is clip art, text, or a mixture of the two<br>Color Management Goal: The goal is to generate colors that are vivid and contrast well with each other. The overall emphasis is to keep the transferred colors close to the input colors but still add a little extra "pop" to the colors. |
| | **Art Logo**<br>When to select: If your source image is clip art, text, or a mixture of the two and you want to increase the intensity of the colors.<br>Color Management Goal: The goal is to generate colors that are vivid and contrast well with each. Unlike the "Clip Art and Text" setting, Art Logo emphasizes vivid output at the expense of color accuracy. |
| | **ColorSure™ Spot Colors**<br>When to select: For all image types (bitmaps, scans, clipart, text, etc...) that were designed using the ColorSure palette. (See appendix C for details on using ColorSure to design your artwork).<br>Color Management Goal: Generate consistent output that reproduces colors based on the ColorSure palette. |
| | **ColorSure™ Photos**<br>When to select: When you have a mix of bitmap & vector (text, clipart, or shapes) and only the vector elements were designed using the ColorSure palette.<br>Color Management Goal: Generate output that reproduces photographic data using the Photo - Realistic setting and uses ColorSure™ Spot Colors for the vector components of the artwork. |

**Print Palette Button –** Prints the ColorSure palette for the selected substrate. ColorSure is a method for reproducing exact spot colors. The two main components are: 1) the transferred palette and 2) the CorelDraw, Corel PhotoPaint, and Adobe swatches. For a complete description on how to use ColorSure to get perfect spot colors, see appendix C.

## Group 2 - Color Settings (Advanced Mode)

**Overview**
This tab gives you access to all of the color management controls available in PowerDriver. Color correction allows you to create transfers from all kinds of images, from photorealistic images to spot color logos. For maximum flexibility, PowerDriver lets you color correct bitmap and vector elements differently, even if they are in the same graphics file. For example, if you scan a photograph and import it into CorelDraw, PowerDriver will use the color management settings that have been selected for Bitmap. If you then add text on top of the bitmap image, PowerDriver will use the color management settings that have been selected for Vector. The photograph and the text will be color corrected differently! Why? You can now sublimate images with realistic photographic backgrounds that have vivid spot color text.

**Vector and Bitmap Explanation**
Bitmaps consist of a grid of pixels. Bitmaps come from digital cameras, scanners, and photo CDs. Bitmaps can also be created in applications like Corel PhotoPaint or Adobe PhotoShop. Bitmaps have file extensions like GIF, JPG, BMP, and TIF. Vector components consist of shapes, curves, lines, and text. They are created in programs such as CorelDraw and Adobe Illustrator. Higher end programs like CorelDraw can combine Vector and Bitmaps into a single image. As a rule of thumb, if the object in your image is made of curves, text, shapes, or fills, it will be color corrected using the PowerDriver Vector settings. All other image types will be color corrected based on the PowerDriver Bitmap setting.

**Color Correction Settings – Bitmap & Vector**

**Realistic (Bitmap Only)-** This setting is most suitable for reproducing skin tones in scanned photographs.
**Original (Vector Only) -** This setting is most suitable for reproducing life-like clipart.

**Saturated** - The Saturated setting will make the colors in your image more intense. Saturated output tries to remain color accurate with a slight bump in intensity.

**Vivid –** This setting is most suitable for images where it is important that the colors are vivid and contrast well with each other. Artwork, graphics, logos, and text, as well as photographs of landscapes or still life are good candidates for the Vivid setting. This can be set for either Bitmap or Vector images.

**Intense –** This kicks the color intensity and saturation to the extreme. This setting does not try to keep color accurate; its main goal is to produce deep dark colors. Artwork, graphics, logos, and text are good candidates for this setting. Some photographs will look good but typically, this setting is too intense to be used with photographs. This can be set for either Bitmap or Vector images.

## ColorSure Enhancement

The ColorSure enhancement is used to replace specific colors in your image with a spot color chosen from the ColorSure palette. This resulting spot color enhancement is not affected by color setting. A ColorSure spot color will ALWAYS print the same. See Appendix C for an overview of ColorSure.

**Print Palette Button –** Prints the ColorSure palette for the selected substrate. ColorSure is a method for reproducing exact spot colors. The two main components are: 1) the transferred palette and 2) the CorelDraw, Corel PhotoPaint, and Adobe swatches. For a complete description on how to use ColorSure to get perfect spot colors, see appendix C.

**Custom Palette Button –** The Custom Palette utility enables you to add, edit, import and export custom colors to the ColorSure palette. If you need to precisely match a specific color, the Color Finder tool makes this a breeze. For a complete description on how to use the Custom Palette, refer to Appendix C.

## Output Options

**Mirror** – When you transfer an image, the result will be “flipped” when compared to the printed image. In order for your transfers to come out correctly, you must flip the image before transferring. Select this option to do the flipping for you. If you are doing this yourself in your editing application, make sure this option is turned off.

**High Speed** – If the printer supports multiple resolutions, choose the most appropriate setting. For soft substrates, the High Speed option works well.

**High Quality** – If the printer supports multiple resolutions, choose the most appropriate setting. For hard substrates, choose the High Quality option.

**GrayScale Images** – Creates monochromatic grayscale images.

**Profile Options**

**Standard –** This is the default driver setting. The standard color profiles provide crisp images with real to life flesh tones.

**Classic –** Use this driver setting for color profiles that are equivalent to the PowerDriver 4800 XG$^8$ in terms of color output.

## Group 3 – Printer Options

**Utilities –** Click this button to display a utilities screen. From the utilities screen you can print a nozzle check pattern, run a print head cleaning cycle, align the printer's print head, spool a PowerDriver XG$^8$ print file to the printer, and print a page of primary ink colors.

**Nozzle Check –** Click this button to print a nozzle check pattern. If any of the nozzle check patterns are incomplete, then perform a Print Head cleaning.

**Head Cleaning** - Performs a Print Head cleaning, after which a Nozzle Check should be performed to verify that the print heads are completely cleaned. Repeat the Head Cleaning until a complete nozzle check pattern is produced.

**Print Primary** – Use this function to print a page of the primary IQ ink colors (Cyan, Magenta, Yellow, Black)

**File Spooler** – Use this function to spool multiple print files to the printer.

**Align Print Heads** – Use this utility to align the print heads to correct misalignment and blurry prints.

## Other Resources

**Help** – This will display a help dialog box for an easy overview of the PowerDriver driver functions and settings. Also contains a link to the Sawgrass Technologies website.

**Register** – If the PowerDriver product has not been registered, click this button for instructions on how to register the product and unlock all the features.

**Input Profile** – This option allows you to specify an input profile that the driver will use when color correcting your image. If you are printing scanned artwork and your scanner manufacturer provided ICC profiles for your scanner model, select the profile here. In order to select a profile, IT MUST BE INSTALLED ON YOUR MACHINE. To install a profile on your machine, locate the profile on your machine using Windows Explorer. (PowerDriver supports both ICC and ICM profile types). Right click on the profile file name and select "Install."

**Visit Project Sublimation** – This button links directly to www.projectsublimation.com. **Project Sublimation** is a dedicated sublimation workshop series designed to give you the skills and strategies to build a profitable sublimation business.

# Appendix A: Network Printing in Windows XP / Vista

Network printing with PowerDriver in Windows XP and Vista is simple. Before a network printer can be used it must be installed on the network and shared.

## Host Machine (Server)

The server machine must have installed the printer and have the printer shared. To install the networked printer, run Start | Setting | Printer | Add Printer. The Wizard will guide you through setting up the printer. When prompted, choose “Network Printer” and browse to the server machine to locate PowerDriver XG[8].

# Appendix B: Over-Riding Design Software Color Management

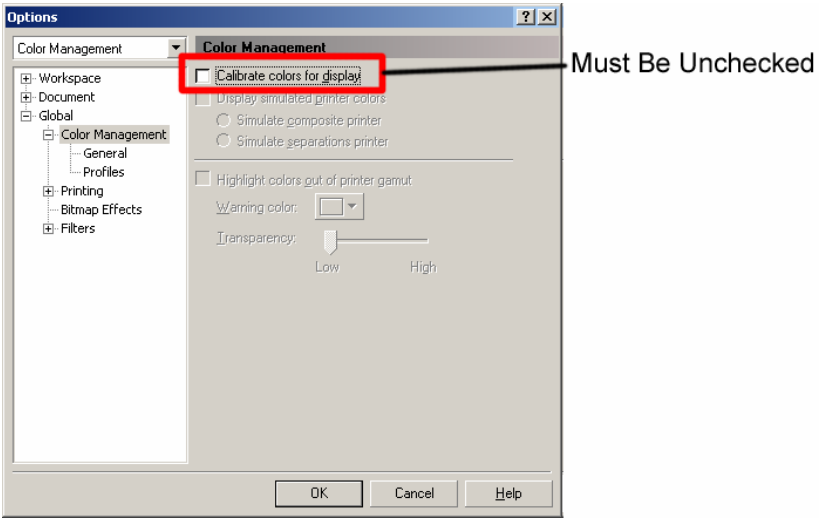
PowerDriver provides a complete color management solution for your SubliJet printing. ***It is extremely important that you turn off any color matching features associated with your design software.*** An explanation of how to disable print-time color management in several popular design packages follows:

## CorelDraw™ version 9

1. Create a new graphic.

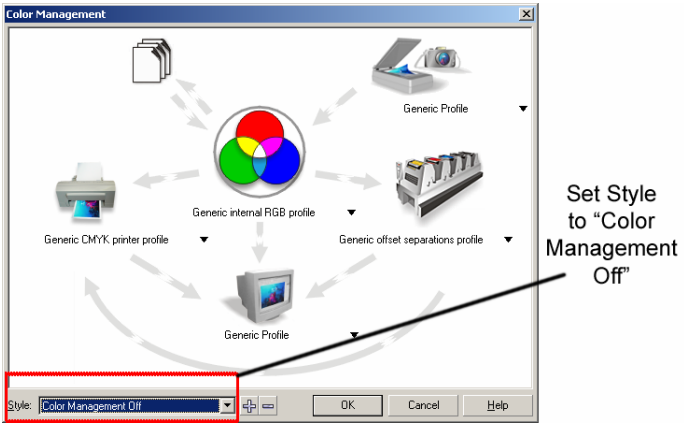
2. From the main menu choose Tools, Color Management. The Color Management dialog box is displayed.

3. In the Color Management window (see figure below), UNCHECK the “Calibrate colors for display” box.

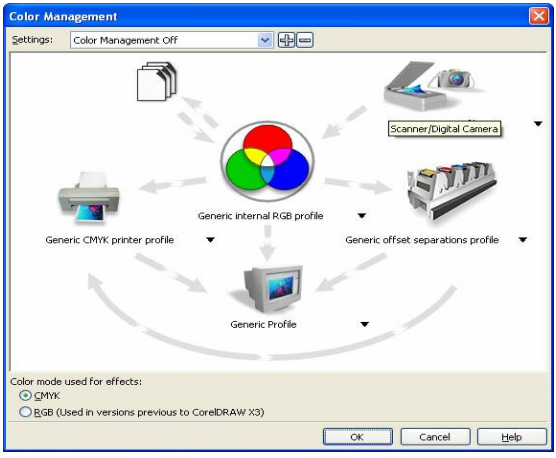


## CorelDraw™ version 10, 11, and 12

1. Create a new graphic.
2. From the main menu choose Tools, Color Management. In the Color Management window (see figure below), set the Style option to Color Management Off.




## CorelDraw™ version X3

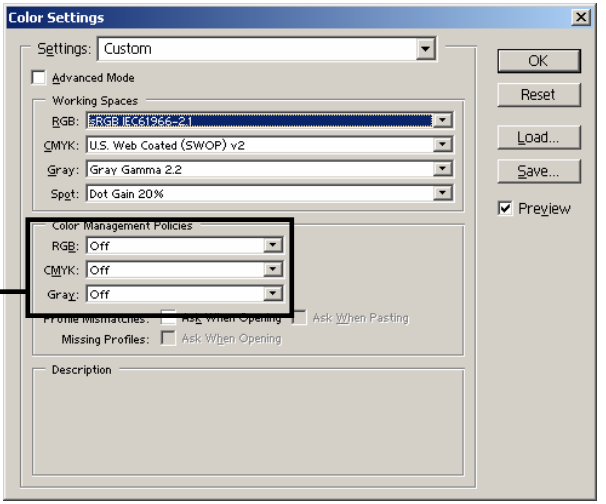


# Adobe Photoshop™ 7, CS, and CS2

## Color Setup

From the main menu choose Edit, Color Settings. On the Color Settings dialog box, turn all Color Management Policies off. Turn off Profile Mismatches.

Set all Color Management Policies to "Off" position




**To Print Photoshop 7 and CS:**

**Always select File, Print with Preview**. On the print dialog page, set the options as described below:

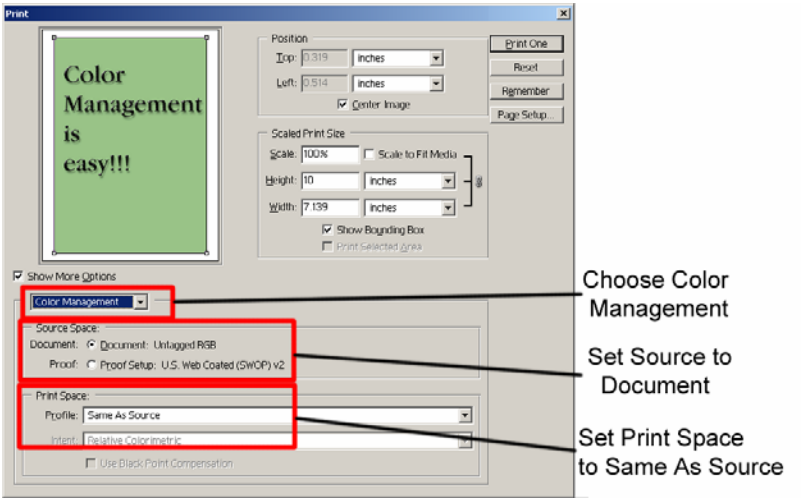
a. Check Show More Options

b. Choose Color Management

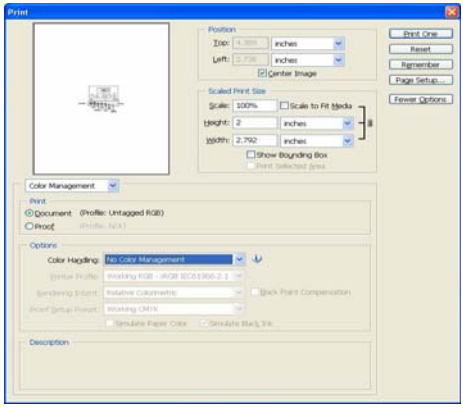
c. Choose Document as Source Space

d. Choose Same as Source for Print Space

From the Color Management drop option list, make sure that Source is set to "Document" and Print Space is set to "Same As Source."




**To Print Photoshop CS2:**



# Appendix C: Using ColorSure™ and Custom Palette

## I. Introduction

ColorSure is a method for reproducing exact spot colors. There are four main components of the ColorSure System: 1) the transferred palette; 2) Color Finder; 3) Custom Palette; and 4) the CorelDRAW and Adobe application palettes / swatches.

1. **ColorSure Palette**: This is your main color palette that includes a wide variety of 190 commonly used colors. To supplement this we have also included the ColorSure XG$^8$ palette which consists of 160 additional colors. The XG$^8$ palette is meant to take advantage of the expanded color gamut available due to the addition of red and blue inks.
2. **Color Finder**: If a color you need is not on the ColorSure palette, the Color Finder tool allows you to locate the exact custom color you are looking for.
3. **Custom Palette**: With the Custom Palette feature, you can add new custom colors to the existing ColorSure Palette mentioned in step 1.
4. **Application Palettes**: You can add your Color Finder colors to an existing application palette, or you can add multiple custom colors to new, custom palette files (*.cpl, *.acl, etc.).

## II. Printing the ColorSure Palette

The first step you will want to take is to print and transfer your ColorSure palette to the various substrates you will be using. Most likely you will have customers who desire precise colors. Having your ColorSure palette available allows the customer to choose the color from the palette that is the closest match to what they want, and this gives you a starting point for finding the exact custom color that will match your customer's needs.

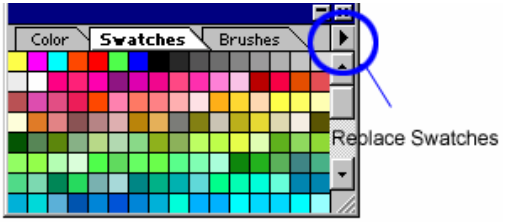
### *To print the ColorSure palette, follow the steps below:*

- Click 'Start' and navigate to the 'Printers and Faxes' folder. Right-click on your PowerDriver printer and select 'Printing Preferences' from the menu. You may also open PowerDriver from within an Adobe or Corel program by going to File, Print, and choosing the PowerDriver printer from the pull-down menu. Click Properties to open PowerDriver.
- Choose the paper size you will be printing the palette to (Letter, Legal, etc)
- Choose the substrate that you will be transferring the palette to.
- Select the speed / resolution of the palette – High Speed or High Quality.
- Be sure to check the box to mirror your print, click 'Print Palette,' and then transfer the palette to the previously selected substrate.
- You now have a visual representation of how the ColorSure palette colors will appear on that particular substrate.

## III. Designing Your Artwork

By picking colors from the ColorSure palette, you will be able to consistently reproduce colors in a reliable manner. To assist you in designing your artwork, PowerDriver installs three palettes: two for Adobe products and one for Corel products. These colors match the palette that is printed from within PowerDriver.

- To open the ColorSure Palette in Corel 10, 11, 12, and X3, choose Window | Color Palettes | Open Palette. Select the file "ColorSure PD XG.cpl"
- To open the ColorSure Palette in Corel 9, choose Window | Color Palette | Open Palette. Select the file "ColorSure PD XG.cpl"
- To open the ColorSure Palette in Illustrator, choose Window | Swatch Libraries | Other Library. Navigate to where it was installed to when you installed PowerDriver: C:\Program Files\Sawgrass\PowerDriver\Adobe Illustrator and hit Open. *For easier access to the Palette file copy it from this [above] path to Illustrator10\Presets\Swatches and it will show up in your pull-down list directly under the Swatch Libraries menu. Other versions of Illustrator will have similar steps.*
- To open the ColorSure Palette in Adobe PhotoShop, choose the Swatches Palette, click the option arrow on the palette, choose *Replace Swatches* and pick the "ColorSure PD XG.aco" file.




***HINT***

After you have the ColorSure palette loaded into CorelDraw, move the cursor over each color. As the cursor hovers over each different color, the ColorSure name is displayed in the status area at the bottom of the screen.

## IV. Using Color Finder

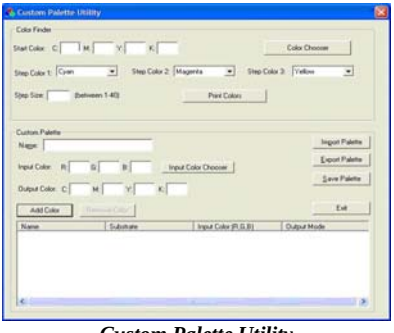
After printing and transferring the ColorSure Palette, you see that you have an array of colors to work with. There will be times, however, when the color you need is not included in the ColorSure Palette. This is where the Color Finder tool comes in handy.

The Color Finder tool allows you to start with a specific color (e.g. navy blue) and find similar colors in the same family by adding and subtracting up to three colors called 'Step Colors.' For example, starting with navy blue with a CMYK value of 60,60,0,40 and choosing two step colors (e.g. cyan and magenta) would expand the original navy blue in four directions (more cyan, less cyan, more magenta, and less magenta). This expanded color chart – specific to a particular substrate and printing speed – is outputted directly to your printer.

***NOTE: For PowerDriver XG$^8$, you will have the added benefit of using Red and Blue with Color Finder and the Custom Color Palette.***

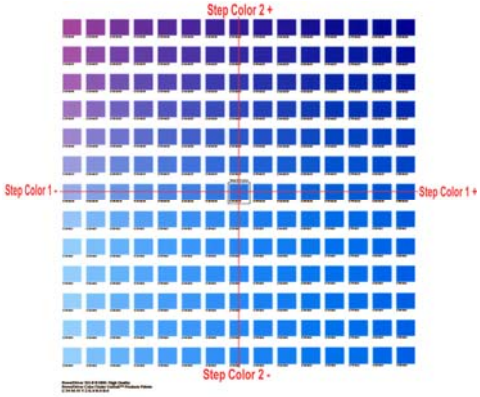
### *How to use Color Finder:*

- Open the PowerDriver window as instructed in "Printing the ColorSure Palette" outlined in Section II.
- First, make sure you select your desired **Substrate**, **Output** (High Speed or High Quality), and the **Mirror** option from the Printing Preferences window. Click **Apply** at the bottom of the window. This is a very important step as it will affect the final printed output.
- At the bottom of the window, click the **Custom Palette** button; this will open the **Custom Palette Utility** window.
- Click on **Color Chooser** and select your desired starting color from the matrix. If you do not wish to use Color Chooser, you have the option to manually enter the **Start Color** values in the CMYK boxes.
  - To use Color Chooser, simply click on the 'Color Chooser' button in the top right of the Custom Palette Utility window. You can then choose a color from the basic color selection, or you can click on the 'Define Custom Colors' button at the bottom of the window. This will display a color matrix. To define a custom color, click anywhere in the matrix. Use the slider at the right of the matrix to adjust luminosity. Clicking 'OK' will automatically fill the CMYK boxes with the corresponding values.
  - For advanced users, CMYK values can be determined by printing out a Custom Palette, which is outlined in the next section.



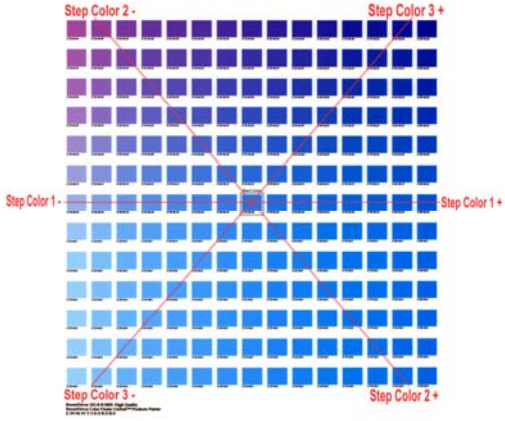

***Custom Palette Utility***

- You may alter the chosen color's CMYK value by selecting two or three **Step Colors**. Using multiple step colors will present you with a greater range and variety of colors to choose from.
  - For instance, if you choose to modify your Start Color with two steps, then Step Color 1 will change its values on the X (horizontal) axis and Step Color 2 will change its values on the Y (vertical) axis.




***Color Finder Palette with two Step Colors***

  - If you modify your Start Color with three steps, Step Color 1 will remain the same. However Step Color 2 and Step Color 3 will form an imaginary 'X' and their values will change on opposing diagonal Y axes.




***Color Finder Palette with three Step Colors***

- Next, determine what **Step Size** you want to apply to the Color Finder palette. This is simply a question of how much you want your Start Color to fluctuate.
- If your Start Color is close the color you are looking for, use a low Step Size (i.e. 5-10). However, if your start color is not close to what you are looking for, use a higher Step Size. You can enter any Step Size value between 1 and 40.
  - As an example, let's say your Start Color is C:20, M:100, Y:150, K:0 and you select Cyan and Magenta to be your Step Colors. You also enter a Step Size of 10. When the 'Print Colors' button is clicked, your Start Color will be in the middle of the Color Finder palette and from there each color will vary the Cyan and Magenta values by 10.
- When you are finished selecting the Start Color, Step Colors, and the Step Size, click on the **Print Colors** button. This will print your custom Color Finder palette directly to your printer.
- After printing the Color Finder palette, transfer it to your selected substrate and then try to match your desired color to one that is on the palette. If you find a suitable match, you are finished using the Color Finder tool. Move on to **Section V. The Custom Palette**.
- If you couldn't find an accurate match on the first printed Color Finder palette, don't worry. Follow the easy steps below, and you can find a more suitable custom color.
  1. First, try to locate a new Start Color from the palette that is closer than the original color.
  2. Next, after finding a more suitable Start Color, write down that color's CMYK value. Here is how to obtain this value. There are numbers under each color that are dependant upon which Step Colors you chose. For example, it might say C:70 M:120. Take note of these values. Then, at the bottom left of the Color Finder palette you will see a full set of CMYK values. The new Start Color's CMYK value would be C:70, M:120 and whatever the YK values are from the full set.
  3. Lastly, plug the CMYK values for the new Start Color into the boxes in Color Finder, choose your Step Size, and click on Print Colors once again. Continue with steps 1-3 until you find your desired color.

# V. The Custom Palette

Let us assume that you have found the exact color you need using the Color Finder tool. What you will want to do next is apply these custom color values to either an existing palette, or to create a new custom palette altogether. This allows you access to this color again should the same job arise.

***How to use Custom Palette:***

- First, you need to assign the CMYK values of the matched color from the Color Finder palette to the **Output Color** CMYK fields in the Custom Palette section.
- Give your new custom color a descriptive **Name** in its designated field (e.g. IBM Blue).
- Next, assign an RGB **Input Color** value. There are two methods to establish this value.
    1. If you have the original file, sample the color that was matched in your graphic design application with the eye dropper tool. This will give you the RGB value of that color. Input this value into the RGB Input Color fields of the Custom Palette section.
    2. If you do not have the original file, or the artwork has not yet been designed, simply click on the 'Input Color Chooser' button, and then click on "Define Custom Colors". From the color matrix, find a color that closely resembles the color that you are adding to the custom palette. At the bottom-right of the color matrix window are the RGB values. Simply click 'OK' and the RGB Input Color values will be automatically entered. Please take note of these RGB values for later use in your design applications.
- Click the **Add Color** button. A window will pop up asking you whether you want to add the color to the palette for all substrates, or just the current substrate. Click 'YES' here unless you have the same custom color saved on palettes for other substrates. Another window will then ask you if you want to save the custom color for all resolutions or just the current one. Click 'YES' here unless you have the same custom color saved on palettes for other resolutions.
- Lastly, click the **Save Palette** button. When finished, simply Exit out of the window.

****** The 'Import Palette' and 'Export Palette' buttons are convenient to have in the event you need to transfer palettes to and from different computers.*

## VI. Adding Swatches to your Application Palette:

It is possible to add your custom color(s) swatch to an application palette as well. You will need to take note of the Input Color RGB value that you assigned in the previous step in order to create the new swatch. Refer to your specific design application software's manual for instructions on this.

# Appendix D: Custom Paper Sizes

### Adding Custom Paper Sizes

The table below lists the minimum and maximum custom paper sizes allowable for this printer:

| Printer | Minimum (W x L) | Maximum (W x L) |
|---|---|---|
| 4800 XG[8] | 4 x 6 (in) | 17 x 1200 (in) |

## Deleting and Modifying Custom Paper Sizes

PowerDriver uses standard Windows Print Server forms for paper size definitions. These forms can be added, deleted and maintained using the standard Windows print server properties configuration dialog.

To access the Print Server Properties dialog open the Printer and Faxes folder from the Windows control panel. Then select the File > Server Properties menu item from the printer folder. The Forms property sheet can be used to delete and modify form properties.

# Tips for Successful Sublimation

## POLYESTER FABRIC

### Maintain appropriate heat press times

- Shortened pressing times will result in good surface color but the sublimation dyes will not completely penetrate the polyester fibers. This leaves the dyes more susceptible to wash out.
- Longer pressing times will cause the dye molecules to penetrate deeper into the fiber, creating a washed out look. For guidelines on transfer times, see the section entitled *Heat Transfer Instructions.*

### Maintain appropriate heat press temperatures and pressure

- The correct temperature setting is vital for achieving desired results. Higher temperatures can damage the polyester fibers to the point that they cannot properly "hold" the dyes. For guidelines on transfer temperatures, see the section entitled *Heat Transfer Instructions.*
- Too much pressure on the heat press may cause the dyes to penetrate too deeply into the fabric causing a washed out look. For guidelines on transfer pressure see the section entitled *Heat Transfer Instructions.*

## METAL

To obtain the best results when printing onto metal, place the transfer between the metal and an absorbent cloth or fresh, non-textured paper towel. This will absorb any dyes that pass back through the paper and any moisture released during the transfer process. If you have problems with inconsistently filled areas, this may alleviate the problem.

## CERAMIC TILES & MUGS

When transferring onto ceramic tiles and mugs, immediately peel the paper off of the ceramic after removing it from the heat press. Once the paper has been removed, cool the ceramic by submerging it in cool water, or run water over it from a faucet. If paper residue remains on the surface of the ceramic, clean with citrus cleaner. If you experience a significant paper-sticking problem, call your SubliJet reseller for assistance.

**UNISUB**

- Prepare the Substrate by peeling the transparent protective film off the surface of the substrate (if applicable) and be sure you are working with a clean, lint-free surface. To aid in the film removal process, touch laminated edge of blank product to corner of heated platen on your heat press for about 5 seconds. Plastic will shrink, allowing you to peel away more easily and reduce chipping the coating.

- The starting dwell time for all Unisub products (metals, plastics, MDF) is 60 seconds under 400 degrees F (200 degrees C) with medium pressure. When doing bulk items in a single pressing, you may need to increase overall dwell time 10-15 seconds to counter loss of heat. Transfer is arranged image side down to blank, white surface (after removing protective laminate film). Consider taping transfer to back of product only as some products (e.g. standard plaques) have foiled edges. Use only heat resistant tape.

- When storing or packaging finished sublimated products, do not stack finished items, either when hot or cold, face-to-face. Do not wrap finished pieces in shrink wrap or place them in a plastic bag for shipping.

- Visit www.unisub.com for additional information about sublimatable blanks and for templates to assist you in selecting optimal sizes and materials.

**Hanes Soft L'Ink® Shirts**

- The presence of moisture in your fabric can lead to bleeding of the image. Remove moisture by pre-pressing your shirt for 10 seconds. Use Teflon sheets between the front and back of the shirt to prevent the inks from penetrating to the other side of the shirt. If dye residue from your heat press is being deposited on your shirts at any time, heat press a paper towel or similar absorbent material to remove it.

- Using a lint brush before pressing can greatly reduce lint or debris on the shirt.

## MOISTURE & HUMIDITY PROBLEMS

The addition of moisture to the sublimation process can cause unwanted results. Under normal circumstances, the small amount of moisture that can accumulate in your paper is absorbed directly into the transfer substrate; however hard substrates like metal and ceramic are unable to absorb excess moisture. Some of problems that are attributed to moisture include: color shifting (colors lose accuracy), bleeding of the image, and uneven transfer of solid filled areas

**To avoid these problems:**

- Keep your paper in a dry place.
- If you suspect moisture, set the paper on your press for a few seconds. Do not press it. Just expose it to the warmth. The heat radiating from the press should help evaporate most of the moisture.
- To eliminate moisture in fabric, press the fabric for 10 seconds before doing the heat transfer.
- Use an absorbent cloth or fresh, non-textured paper towel behind the transfer sheet to absorb the moisture.

# Supplies & Equipment

Contact your authorized reseller to purchase sublimation supplies and equipment. For more information, see the Sublimation Supplies Directory on our website at www.sawgrassink.com.

# Operating Conditions

Certain environmental conditions should be taken into account for the operation of SubliJet inks, including temperature and relative humidity.

- Supported Operating Conditions are 65° – 80° F with 40 – 60% relative humidity
- Optimum Operating Conditions are 68° – 75° F with 40 – 60% relative humidity

# Storage

- Care should be taken to prevent storing SubliJet below freezing temperatures (32°F, 0°C). Do not expose SubliJet to extreme heat (temperatures in excess of 104°F, 40°C). If SubliJet has been in storage, you should allow it to reach room temperature before using it.
- Do not expose SubliJet cartridges directly to light, especially sunlight, for extended periods.
- For best results, install your SubliJet cartridges by the date on the cartridge. Please refer to the individual ink bag/cartridge for the specific ink expiration date.

# Troubleshooting

The troubleshooting tips found in this section relate mainly to problems that can be seen in transferred SubliJet images. If you are having problems related to the performance of your printer, please refer to the *Problem Solving* section found in the *EPSON Stylus PRO 4880 Printer Quick Reference Guide*.

**The colors in my transferred image are incorrect**

- The image may need color adjustment. Use PowerDriver XG[8] color matching software. For more information on how to use this software, please see the section entitled PowerDriver XG[8] *User's Guide*.
- Ensure you used the right printer driver and driver settings. Please see the section entitled PowerDriver XG[8] *User's Guide*.
- Ensure you pressed the item with the proper time, temperature, and pressure. For guidelines see the section entitled *Heat Transfer Instructions.*
- Verify all colors print correctly. Run the Nozzle Check utility and clean the print heads as required.

**My printout is really light on paper**

SubliJet IQ ink naturally looks muted before the heat transferring of the image. After transferring is complete, SubliJet's unique inks will produce a brilliant and durable final product.

**My printout gets cut off on the bottom or side**

- Verify the printer driver is setup for the correct paper size. Your printer driver setting needs to match the paper size that is loaded in your printer.
- Ensure the right paper guide is in the proper position. When setting up the printer, slide the right paper guide to the left until it clicks into position.

**My image looks good but it washes out**

- Ensure you pressed the garment with the proper time, temperature, and pressure. If so, try pressing longer to ensure that the dyes are penetrating the fibers sufficiently. For guidelines, see the section entitled *Heat Transfer Instructions.*
- Ensure you used a recommended paper. See the section entitled *Selecting Paper*.
- Ensure your substrate is designed to accept sublimation transfers. Garments made from natural fibers, such as cotton, are not compatible with the sublimation process.

**Colors are light and splotchy**

- Ensure you printed on the correct side of the paper. The print side is the bright white side of the paper.
- Ensure you used a recommended paper. For more information, see the section entitled *Selecting Paper*.
- Ensure you pressed the item with the proper time, temperature, and pressure. For guidelines, see the section entitled *Heat Transfer Instructions.*
- Verify your printer driver settings are correct. Please see the section entitled PowerDriver XG[8] *User's Guide* for additional information.
- Ensure you do not have a moisture problem. For more information, see the section entitled *Moisture and Humidity* on the *Tips for successful Sublimation* page.
- Ensure your substrate is designed to accept a sublimation transfer. Garments made from natural fibers such as Cotton are not compatible with the sublimation process.

**My image looks blurred**

- Ensure you pressed the item with the proper time, temperature, and pressure. For guidelines, see the section entitled *Heat Transfer Instructions.*
- Ensure you used a recommended paper. For more information, see the section entitled *Selecting Paper*.

- Ensure you printed on the correct side of the paper. The print side is the bright white side of the paper.
- Ensure you do not have a moisture problem. Try drying the paper on the press or putting a paper towel behind the transfer when you heat press it. Read the section entitled *Moisture and Humidity* on the *Tips for Successful Sublimation* page.
- Verify that the printer's print heads are properly aligned. For further instructions, see the *EPSON Stylus PRO 4880 Printer Quick Reference Guide.*

**My image has gaps or bands present**

- Ensure that all of the printer's nozzles are firing properly. Perform a Nozzle Check from the *Utility* tab of your printer driver. For further instructions, see the *EPSON Stylus PRO 4880 Printer Quick Reference Guide.*
- If one or more of the nozzles fail to print, perform a Print Head Cleaning. For further instructions, see the *EPSON Stylus PRO 4880 Printer Quick Reference Guide.*

# Technical Support

If you are having difficulties achieving good results from your SubliJet IQ™ inks, you have several support options:

1. Telephone: You may contact your authorized SubliJet reseller during their normal hours of operation for assistance. A full listing of authorized SubliJet Resellers is available on our Web site at www.sawgrassink.com. In addition, you may also contact Sawgrass Technical Support at (888) 253-1679 between the hours of 8:00 AM and 5:30 PM Eastern Standard Time.

2. Internet: Visit the *Technical Support* area of the Sawgrass Technologies, Inc. website at www.sawgrassink.com. The troubleshooting utility found here will provide you with solutions to some of the most common problems. You may submit a detailed description of your problem if you need further assistance.

3. E-mail: You may e-mail Sawgrass Technical Support with a detailed description of your problem at support@sawgrassink.com.

4. Fax: You may fax a detailed description of your problem to Sawgrass Technical Support at (843) 849-3847.

# Project Sublimation

Whether you are a current business owner adding sublimation to your line-up, a novice or intermediate sublimation user who would like to learn more, or an entrepreneur exploring the dye-sub industry, Project Sublimation is the industry's choice for practical, hands-on instruction. From equipment and product overview to marketing and pricing your products; from the science of sublimation to color management, our two-day, interactive workshop series will give you the background and know-how needed to run a full-service sublimation business.

At Project Sublimation workshop events, you will also have the opportunity to network with fellow sublimation users across the US and Canada. The new, enhanced Project Sublimation web site gives attendees access to the full business assets and forums, an invaluable resource for growing your sublimation business.

*Isn't it time you took <u>your</u> business to the next level?*

Project Sublimation travels to cities throughout the United States and Canada. Join us in a city near you for this dynamic, full-service workshop. Spend two days with one of our experts and get a leg up on your competition.

Please visit us on the web at www.ProjectSublimation.com or phone us toll free at 1.888.780.7349.